# USB/Ethernet DSL Modem

The new Actiontec DSL Modem is really two devices rolled into one. It's a full rate ADSL 2/2+ modem and it's a router, capable of networking up to 256 computers using wires (2 computers without using a switch), with a minimum amount of hassle.

Model # GT701R & GT701

## The Installation Guide Makes It Easy

A step-by-step visual setup guide, the Installation Guide provides simple, straightforward instructions for procedures that were once the province of IT professionals. Now, you can eliminate most of the confusion inherent with installing DSL modems or gateways. With this DSL Modem, you will get it all: flexibility, simple installation and trouble-free operation.

## Features

- Full-rate ADSL 2/2+ modem - supports data rates of up to 24 Mbps downstream and up to 1 Mbps upstream*
- Exceeds performance of the DSL Forum specification
- Loop reach of up to 18,000 feet using ADSL and 18,600 feet using ADSL 2
- Tested and compatible with all major DSLAMs
- Advanced security: Firewall, Stateful Packet Inspection, NAT, website blocking, web service blocking, Internet traffic logging, Denial of Service (DOS) protection
- Other features include:
  - Bit Swapping
  - DHCP Server Option
  - Compliant with DSL Forum TR048 Rate and Reach Requirements
  - DMZ Hosting
  - DNS Proxy Server
  - Dynamic Rate Adaptation
  - Independent upstream and downstream data rate provisioning
  - LAN IP Address Selection
  - Multiple PVC supported
  - NAT Services Blocking
  - Port Forwarding
  - Real-time diagnostics
  - Remote Management S=1/2 Support
  - Services Blocking
  - Static Routing
  - Unnumbered Mode Support
  - VPN Pass Through
  - WAN IP & LAN IP Address Selection
  - Website Blocking

* Depends on the services offered by the Internet Service Provider.

# USB/Ethernet DSL Modem

## Technical Specifications

| Features | Descriptions |
|---|---|
| ADSL | • ITU G.992.1 (G.dmt), G.992.2 (G.Lite), G.994.1 (G.hs), G.992.3 (G.dmt.bis)**, G.992.4 (G.lite.bis)**, G.992.5 (ADSL2plus)**<br>• ANSI T1.413 Issue2 |
| ATM | • ATM User-Network Interface, Version 3.1, Section 3. The ATM Forum, 1995.<br>- The full VPI range (0 – 4095) and VCI range (1 – 65535) are supported.<br>- Adaptation Layers AAL5, AAL2 and AAL0 are supported.<br>- The traffic shaping function supports traffic classes CBR, VBR (real time and non-real time) and UBR (with PCR limiting). |
| OAM | • ITU-T Recommendation I.610 B-ISDN Operation and Maintenance Principles and Operations.<br>- F5 segment and end-to-end loopback cells |
| Ethernet | • ISO/IEC 8802-3; ANSI/IEEE standard 802.3 part 3<br>- IEEE 802.3x – Full Duplex capable<br>- IEEE 802.3u – Auto negotiation<br>• RFC 1213 S K. McCloghrie, M. Rose, "Management Information Base for Network management of TCP/IP-based internet: MIB-II", 03/26/1991.<br>• D-I-X, "The Ethernet - A Local Area Network: Data Link Layer and Physical Layer Specifications", Digital, Intel, and Xerox, November 1982. |
| Bridge | • Transparent MAC level bridge for Ethernet-like devices in conformance with the IEEE802.1d specification.<br>• ISO/IEC 10038:1993 (E), Std 802.1D.<br>• RFC1213 S K. McCloghrie, M. Rose, "Management Information Base for Network Management of TCP/IP-based internet: MIB-II", 03/26/1991.<br>• RFC1493 Definitions of Managed Objects for Bridges. E. Decker, P. Langille, A. Rijsinghani, & K. McCloghrie. July 1993. |
| IP | • RFC 791, Internet Protocol. J. Postel. Sep-01-1981.RFC 950, Internet Standard Subnetting Procedure. J.C. Mogul, J. Postel. Aug-01- 1985.<br>• RFC 1122, Requirements for Internet hosts – communication layers. R.T. Braden. Oct-01-1989.<br>• RFC 1191, Path MTU discovery. J.C. Mogul, S.E. Deering. Nov-01-1990.<br>• RFC 1213, Management Information Base for Network Management of TCP/IP-based internet: MIB-II. K. McCloghrie, M.T. Rose. Mar-01-1991.<br>• RFC 894, Standard for the transmission of IP datagrams over Ethernet networks. C. Hornig. Apr-01-1984. |
| ARP | • RFC 826, Ethernet Address Resolution Protocol: Or converting network protocol addresses to 48.bit Ethernet address for transmission on Ethernet hardware. D.C. Plummer. Nov-01-1982. |
| ICMP | • RFC 792, Internet Control Message Protocol. J. Postel. Sep-01-1981. |
| UDP | • RFC 768, User Datagram Protocol. J. Postel. Aug-28-1980. |
| TCP | • RFC 793, Transmission Control Protocol. J. Postel. Sep-01-1981. |
| IP Router | • Support Static Route<br>• Support unnumbered mode |
| RIP | • RFC 1058, Routing Information Protocol. C.L. Hedrick. Jun-01-1988.<br>• RFC 1723, RIP Version 2 - Carrying Additional Information. G. Malkin. November 1994.<br>• RFC 2453, RIP Version 2. G. Malkin. November 1998.<br>• RFC 1812, Requirements for IP Version 4 Routers. F. Baker. June 1995.<br>• RFC 1191, Path MTU discovery. J.C. Mogul, S.E. Deering. Nov-01-1990. |
| DHCP Server | • RFC 2131: Dynamic Host Configuration Protocol: R. Droms, March 1997.<br>• RFC 2132: DHCP Options and BOOTP Vendor Extensions: S. Alexander, March 1997. |
| DHCP Client | • RFC 2131: Dynamic Host Configuration Protocol: R. Droms, March 1997.<br>• RFC 2132: DHCP Options and BOOTP Vendor Extensions: S. Alexander, March 1997.<br>• The DHCP client supports the following minimal subset of options described in RFC2132:<br>- Requested IP Address (requested by default; is mandatory)<br>- Parameter Request list (subnet-mask only)<br>- IP Address Lease time (dhcp-lease-time)<br>- Client-identifier (dhcp-client-identifier)<br>- Default route (routers)<br>- DNS Proxy Server |

# USB/Ethernet DSL Modem

## Technical Specifications (cont)

| | |
|---|---|
| **NAT, PAT (IP Masquerading)** | • RFC2663, "IP Network Address Translator (NAT) Terminology and Considerations, P.Srisuresh, M. Holdrege. August 1999.<br>• RFC3022, Traditional IP Network Address Translator (Traditional NAT). P. Srisuresh, K. Egevang. January 2001. |
| **NAT ALGs (Application Level Gateway)** (NAT Pass Through) | • FTP (over NATP)<br>• Netmeeting<br>• IPSec<br>• PPTP |
| **NAT advanced features** | • Port Forwarding<br>• DMZ<br>• Service Blocking<br>• Web site blocking<br>• Web Activity Log |
| **Firewall** | • Stateful Firewall: multiple security levels.<br>• Basic IDS: Stateful Packet Inspection for prevention of Denial of Service (DoS) attacks. |
| **Universal Plug and Play (UPnP)** | • Internet Gateway Device (IGD) Standardized Device Control Protocol V 1.0, 11/12/2001. |
| **PPPoA** | • RFC 2364, PPP Over AAL5. G. Gross, M. Kaycee, A. Lin, A. Malis, J. Stephens, July 1998. |
| **PPPoE** | • RFC 2516, Method for Transmitting PPP Over Ethernet (PPPoE). L. Mamakos, K. Lidl, J. Evarts, D. Carrel, D. Simone, R. Wheeler. February 1999. |
| **RFC1483** | Supports bridged 802.3 Ethernet frames over an ATM network.<br>• LLC encapsulation, in which an LLC/SNAP header is prepended to the (Ethernet) frame.<br>• VC multiplexing, in which a null two byte header is prepended to the frame.<br>Default is LLC encapsulation; VC multiplexing can be configured using console command or WEB configuration.<br>• RFC1483 J. Heinanen, "Multiprotocol Encapsulation over ATM Adaptation Layer 5", 07/20/1993.<br>• RFC1213 S K. McCloghrie, M. Rose, "Management Information Base for Network Management of TCP/IP-based internet: MIB-II", 03/26/1991.<br>• RFC 2684, Multiprotocol Encapsulation over ATM Adaptation Layer 5. D. Grossman, J. Heinanen. September 1999. |

| | |
|---|---|
| **Web Server and Web Based Configuration** | • RFC 1945, Hypertext Transfer Protocol -- HTTP/1.0. T. Berners-Lee, R. Fielding, H. Frystyk. May 1996.<br>• RFC 2068, Hypertext Transfer Protocol -- HTTP/1.1. R. Fielding, J. Gettys, J. Mogul, H. Frystyk, T. Berners-Lee. January 1997. (Not full support).<br>• RFC 2617, HTTP Authentication: Basic and Digest Access Authentication. J. Franks, P. Hallam-Baker, J. Hostetler, S. Lawrence, P. Leach, A. Luotonen, L. Stewart. June 1999. |
| **Environmental Operating Range** | • Operating Temperature: 0°-40° Celsius<br>• Humidity: 8-95% non-condensing |
| **Power Requirements** | • Operating voltage: +12V DC +- 5% @ 600mA max |

# USB/Ethernet DSL Modem

## Minimum System Requirements

- PC or Macintosh with Ethernet connection or PC with available USB port
- Microsoft Windows 98SE, Me, 2000, XP, Vista; Mac OS 9 or higher; Linux/BSD, Unix (USB: Windows 98SE, Me, 2000 XP)
- TCP/IP network protocol installed
- Internet Explorer 5.0+ or Netscape 5.0+

## Package Contents

- Actiontec DSL Modem
- Start Here Guide
- Ethernet Cable
- USB Cable
- 4 Pack of Microfilters
- User Manual (soft copy on CD-ROM)
- Installation CD-ROM
- Power Cord
- DSL Cable

Note: Customers may request customized self-install kit configuration

## Corporate Office

**760 N. Mary Avenue, Sunnyvale, CA 94085**

Main: (408) 752-7700
Sales Info: (800) 797-7001
Fax: (408) 541-9003
Tech Support: (888) 436-0657
Tech Support Fax: (719) 522-9421
Internet: www.actiontec.com

© 2008 Actiontec Electronics, Inc.
Actiontec, Actiontec Installation Buddy, Connection1-2-3, Solutions for the Digital Life, Actiontec Digital Gear and the Actiontec logo are trademarks or registered trademarks of Actiontec Electronics, Inc. All other names are properties of their respective owners.
Product photo may differ from actual product, however functionality remains as stated above.
Specifications are subject to change without notice.